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| APPLICATION NO.                                       | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO.  |  |
|---|-------------|----------------------|---------------------|-------------------|--|
| 10/570,665  | 03/06/2006  | Akihiko Endo         | P29120              | 1241              |  |
| 7055 7590 03/06/2009<br>GREENBLUM & BERNSTEIN, P.L.C. |             |                      | EXAMINER            |                   |  |
| 1950 ROLAND CLARKE PLACE<br>RESTON, VA 20191          |             | •                    | CAMPBELL            | CAMPBELL, SHAUN M |  |
|   |             |                      | ART UNIT            | PAPER NUMBER      |  |
|   |             |                      | 2829                |                   |  |
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|   |             |                      | NOTIFICATION DATE   | DELIVERY MODE     |  |
|   |             |                      | 03/06/2009          | ELECTRONIC        |  |

## Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com pto@gbpatent.com Application/Control Number: 10/570,665 Page 2

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## ADVISORY ACTION

1. Supplemental Response, received 2/4/2009, has been entered into the record.

2. Claims 1, 6, 14 and 15 are pending and claims 2-5 and 7-13 are canceled.

## Response to Arguments

 Applicant's arguments filed 2/4/2009 have been fully considered but they are not persuasive.

In the remarks, Applicant argued that Nakazato does not teach or suggest the
use of different thicknesses of oxide films covering the top and reverse surfaces of a

wafer for warping a pre-bonded wafer.

5. Examiner traverses Applicant's arguments because Nakazato discloses that the

magnitude of the warp of the wafer depends on the thicknesses of the oxide films (col.

4, line 67 to col. 5, line 9 and fig 2 and fig. 3 wherein the x-axis defines "warp of wafers

with an oxide film formed on one side thereof" and the y-axis defines "warp of wafers

with no oxide film formed thereon"). Therefore as explained in the previous Advisory

Action this obviousness type rejection stands.

6. In the remarks, Applicant argued that Nakazato teaches away from a thinner

wafer having influence on the warp of an entire bonded wafer.

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7. Examiner traverses this argument because it does not matter if as the wafer

thickness decreases the influence on the warp decreases because for one this is not

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the claimed invention and secondly the same would be the case for the Applicants'

disclosed invention.

8. In the remarks, Applicant argued that a buried oxide film is not a film thickness on

a top surface side.

9. Examiner traverses this argument because the reference does show this

(translated abstract and fig 4). Just because the surface is not exposed does not mean

that it is not the top surface of the wafer.

10. In the remarks, Applicant argued that there is no basis for combining the

disclosure of Masaki with Nakazato.

11. In response to Applicant's argument that there is no suggestion to combine the

references, the Examiner recognizes that references cannot be arbitrarily combined and

that there must be some reason why one skilled in the art would be motivated to make

the proposed combination of primary and secondary references. *In re Nomiya*, 184

USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make

the modification be expressly articulated. The test for combining references is what the

combination of disclosures taken as a whole would suggest to one of ordinary skill in the

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art. In re McLaughlin, 170 USPQ 209 (CCPA 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. In re Bozek, 163 USPQ 545 (CCPA 1969). In this case, Masaki expressly teaches that a difference in film thickness will result in warping of a wafer. Therefore it would have been know to one of ordinary skill in the art at the time the invention was made that varying the film thickness on the top surface and the bottom surface of a wafer would create a warp.

- 12. In the remarks, Applicant argued that Nakazato does not teach warp of the first and second wafer should be matched to have fitting surfaces of the same curvature.
- 13. Examiner traverses this argument because Nakazato (fig 1a-c) shows this and the argument does not address why the Applicant believes that this is not taught in this reference.

## Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHAUN CAMPBELL whose telephone number is (571)270-3830. The examiner can normally be reached on Monday Through Friday 8:00AM-5:30PM EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nguyen Ha can be reached on (571) 272-1678. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shaun Campbell/ Examiner, Art Unit 2829 2/26/2009

/Ha T. Nguyen/ Supervisory Patent Examiner, Art Unit 2829